

**UNITED STATE DISTRICT COURT  
EASTERN DISTRICT OF VIRGINIA  
Alexandria Division**

TAREK EL-GHAZAWI, Ph.D., and THINKING LIGHTS LLC, a Virginia limited liability company,	)	
	)	
	)	
<i>Plaintiffs,</i>	)	
	)	
v.	)	Civil Action No. 1:23-cv-01771-LMB-WBP
	)	
OPTELLIGENCE LLC, a Delaware limited liability company, VOLKER J. SORGER, Ph.D., HAMED DALIR, Ph.D., and BEHROUZ MOVAHHED NOURI,	)	
	)	
	)	
<i>Defendants.</i>	)	

**AMENDED COMPLAINT FOR DAMAGES AND EQUITABLE RELIEF**

Tarek El-Ghazawi, Ph.D., and Thinking Lights LLC, a Virginia limited liability company, by their attorney, file this Amended Complaint pursuant to the Court’s April 26, 2024 Order (ECF 33), jointly and severally, against Defendants Optelligence, LLC, a Texas limited liability company, Volker J. Sorger, Ph.D., Hamed Dalir, Ph.D. and Behrouz Movahhed Nouri,<sup>Δ</sup> and in support thereof aver and allege as follows:

**PARTIES**

1. Thinking Lights LLC (“Thinking Lights”) is a Virginia limited liability company, formed in or about June 2019 by Plaintiff El-Ghazawi and Defendant Sorger, with its principal place of business in Great Falls, Virginia.

2. Tarek El-Ghazawi, Ph.D. (“Dr. El-Ghazawi”), a tenured professor at The George

---

<sup>Δ</sup> This Amended Complaint corrects the English transliteration spelling of the first names of Defendants Dalir and Movahhed Nouri, *i.e.*, “Hamed” and “Behrouz,” respectively. Both Dalir and Movahhed Nouri, by counsel, accepted service of and responded to the Complaint despite those misspellings

Washington University (“GWU”) School of Engineering & Applied Science in Washington, D.C and presently Chair of the GWU electrical and computer engineering department, is a Virginia resident and has served as a manager of and the CEO of Thinking Lights since its formation.

3. Defendant Optelligence LLC (“Optelligence”) is a Delaware limited liability company with its headquarters and principal place of business at 111 Congress Ave., Austin, TX 78701. Optelligence may be served via its registered agent, United States Corporation Agents, Inc., 651 N. Broad Street, Suite 201, Middletown, DE 19709. Defendants Sorger, Dalir and Movahhed Nouri are all former colleagues of Dr. El-Ghazawi as well as corporate executive officers of and significant members, *i.e.*, significant equity owners, of Optelligence.

4. Defendant Volker J. Sorger, Ph.D. (“Dr. Sorger”), was a professor at GWU and Dr. El-Ghazawi’s partner in and a manager of Thinking Lights until 2020. Thereafter and at least until recently, Dr. Sorger was a Founder of Optelligence with the title of President. On information and belief, Dr. Sorger is presently a Florida resident and may be served at 2223 NW 23rd Terrace, Gainesville, FL 32605-3839.

5. Defendant Hamed Dalir, Ph.D. (“Dr. Dalir”) is a former GWU associate research professor and a member of the GWU team, led by Sorger and El-Ghazawi, on a \$3 million 2019 project funded by the Office of Naval Research in the photonic computing realm, Dalir’s area of expertise. Dalir was knowledgeable from his activities therein and prior relationship with Defendant Sorger with the structure, purpose and business plan of Thinking Lights. He is a Founder of Optelligence and, from its organization at least until recently, served as CEO of the company. As a corporate officer of Optelligence, Dalir approved the licensing and business agreement between GWU and Optelligence alleged below. Dalir moved from GWU to the University of Florida in Gainesville, Florida, along with Defendant Sorger, in or about June 2023. On information

and belief, Dr. Dalir is presently a Florida resident and may be served at 13913 NW 9th Lane, Newberry, FL 32669-3771.

6. Defendant Behrouz Movahhed Nouri (“Movahhed Nouri”) is a former Ph.D. graduate student at the GWU department of electrical and computer engineering, where Defendant Sorger served as his academic advisor. Movahhed Nouri was a colleague of Defendant Dalir at the University of Texas at Austin, a business associate of Defendant Sorger at Omega Optics, Inc. in Austin, Texas, and a member of the GWU team, led by Sorger and El-Ghazawi, on a \$3 million 2019 project funded by the Office of Naval Research. He was knowledgeable, including from his activities therein, with the structure, purpose and business plan of Thinking Lights. Movahhed Nouri is a Founder of and substantial investor in Optelligence. From its organization and at least until recently, Movahhed Nouri served as CTO of Optelligence. As a corporate officer of Optelligence, Movahhed Nouri approved the licensing and business agreement between GWU and Optelligence alleged below. On information and belief, Movahhed is presently a Texas resident and may be served at 3409 Winter Wren Way, Pflugerville, TX 78660-7875.

### **JURISDICTION AND VENUE**

7. This Court has jurisdiction over this case pursuant to 28 U.S.C. § 1332(a)(1) based on diversity of citizenship and an amount in controversy, exclusive of interest and costs, exceeding the sum or value of \$75,000.00.

8. Venue is proper in that Plaintiffs reside and do business in this District and many of the acts and circumstances from which the claims in this case arise took place in Fairfax County, Virginia.

### **FACTUAL ALLEGATIONS**

9. Thinking Lights is a Virginia limited liability company, formed in 2019 (although conceived and conceptually developed earlier) by Plaintiff El-Ghazawi and Defendant Sorger to develop and commercialize photonic and nanophotonic computing technologies researched or invented by either or both of them, including by means of (a) venture and institutional capital investment, (b) SBIR (Small Business Innovation Research), STTR (Small Business Technology Transfer) and other R&D grants from the federal government, and (c) long-term product development research and design.

10. Dr. El-Ghazawi and Dr. Sorger mutually developed the Thinking Lights concept before 2019, first presenting the idea to and starting negotiations with GWU in 2018. The vision for this venture was to combine the computing expertise of Dr. El-Ghazawi with the nanophotonic expertise of Dr. Sorger to create a next-generation advance in the speed and power of computers. As their discussions with GWU administration and the GWU Technology Commercialization Office got closer to yielding a full agreement, the company was officially formed and registered with the Virginia State Corporations Commission.

11. Central to the business plan of Thinking Lights was the agreement of Dr. El-Ghazawi and Dr. Sorger that each would contribute all of their nano-photonic computing related ideas, research and protected intellectual property (*i.e.*, their invented patents, which were technically owned by GWU) in this subject matter area to the company, with an option to sell Thinking Lights, including the patents or a license to such technologies, if the startup company achieved a liquidity or exit event.

12. Thinking Lights, Dr. El-Ghazawi and Dr. Sorger later negotiated extensively with GWU officials at the university's Technology Commercialization Office in 2019 and 2020 with

respect to a proposed agreement for transferring ownership of or licensing some or all such patents to Thinking Lights.

13. Unbeknownst to Dr. El-Ghazawi, however, Dr. Sorger had secretly abandoned the Thinking Lights venture in 2020 to negotiate separately, for his own account, with GWU with respect to the photonic and nanophotonic patents he had invented. Optelligence and GWU subsequently reached agreement, again without participation by or the knowledge of either Dr. El-Ghazawi or Thinking Lights, on essentially comparable terms as earlier proposed jointly by Dr. El-Ghazawi and Dr. Sorger.

14. Dr. Sorger maintains via his website that he was a Founder of Optelligence. Neither Dr. Sorger nor Optelligence, however, (a) presented the above-referenced business and funding opportunity to Thinking Lights or to Dr. El-Ghazawi, and (b) did not seek or receive the consent of Thinking Lights to pursue any sort of funding or other business relationship with Optelligence, with Defendant Movahhed Nouri, a principal Optelligence investor, or with MDD Investments LP, an Austin-based, private investment firm controlled by Optelligence advisory board member Francisco Conti, or any other potential investor. Neither Dr. Sorger nor Optelligence, moreover, disclosed that Optelligence was planning to and did apply for government funding grants, including STTR grants from the Department of Defense, for which it was awarded \$4,132,586.00 in 2022 and \$49,985.00 in 2021, and NASA, for which it was awarded \$124,984.00 in 2021, all in the area of applied photonic computing.

15. GWU presented a final agreement to Dr. El-Ghazawi and Dr. Sorger for execution on behalf of Thinking Lights on or about March 1, 2020. Sorger declined to execute that agreement, without revealing his parallel, secret activities to form a new company to commercialize the Thinking Lights business plan. At or about year-end 2020, Optelligence reached agreement

with GWU and Dr. Sorger to pursue funding opportunities and commercialize many of the same photonic and nanophotonic ideas, research and patents developed by Dr. El-Ghazawi and Dr. Sorger for which the two professors had earlier formed Thinking Lights. Defendant Dalir negotiated with GWU on behalf of Optelligence in connection with that undisclosed agreement.

16. Optelligence, Movahhed Nouri and Dr. Dalir, as alleged previously, each knew of and was familiar with the business plan of Thinking Lights and the related efforts by Dr. El-Ghazawi and Dr. Sorger to finalize an agreement with GWU. That knowledge arose, *inter alia*, from their participation in the small, approximately 20-person GWU electrical and computer engineering department, their exposure therein to the mutual opportunities, including Thinking Lights, being pursued by Sorger and El-Ghazawi, their prior business, academic and personal relationships with Dr. Sorger, including at Omega Optics, other Austin-based University of Texas (“UT”) spin off companies, and with respect to STTR and other government research grants to UT on which Dr. Sorger was also part of the funded team. On information and belief, Dr. Sorger shared with Defendants Dalir and Movahhed Nouri, and possibly others, the business plan for Thinking Lights, or elements thereof, as well as some or all of Thinking Lights’ presentations to GWU.

17. None of the Defendants offered either Thinking Lights or Dr. El-Ghazawi any compensation, by way of equity in Optelligence, cash payment or otherwise, in consideration of their usurping the GWU opportunity. Optelligence, Movahhed Nouri and Dr. Dalir knew of the agreements between El-Ghazawi and Sorger for the development of Thinking Lights and specifically intended for Dr. Sorger to breach those agreements by, *inter alia*, approving Optelligence’s conflicting year-end 2020 agreement with GWU for transferring, assigning or licensing some or all of Dr. Sorger’s applicable patents to Optelligence.

18. Dr. El-Ghazawi noticed a marked change in the attitude of his GWU electrical and computer engineering department colleagues in 2020 and 2021, namely tension and disagreements, particularly but not only with Dr. Sorger, regarding the scope, financial decision-making, and cooperative management of the ONR grant project and others, among the many on which Sorger and El-Ghazawi had thereto worked cooperatively, with El-Ghazawi serving the role of *de facto*, senior mentor to Dr. Sorger. It was not until after he was elevated to electrical and computer engineering department Chair in or about September 2022 that El-Ghazawi first learned of the existence of Optelligence, principally by way of administrative and financial information made available to department heads. Dr. El-Ghazawi notified GWU management that it appeared he had a conflict of interest with respect to Optelligence and was therefore resigning from existing and future GWU-managed projects involving Dr. Sorger or Optelligence.

19. In September 2022, and again in December 2022, Defendants Dalir and Movahhed Nouri approached El-Ghazawi to attempt to work out the tensions and disagreements among El-Ghazawi, Sorger, Thinking Lights and Optelligence. They presented a proposed “Joint Agreement to Cooperate” under which both Dr. Sorger and Dr. El-Ghazawi would as employees work part-time for Optelligence and receive in return substantial, fifteen percent (15%) royalty compensation from the company and serve as ex-officio members of the corporate Board of Directors.

20. That proposal was not structured as a settlement of any legal claims, specifically including the following, express caveat: “No claims of Dr. Tarek El-Ghazawi that existed prior to December 6, 2022, will be lost as a result of this agreement and Dr. Tarek El-Ghazawi may pursue those claims using any appropriate means.” The Joint Agreement was executed by all three corporate officers of Optelligence, including Dr. Sorger, but El-Ghazawi did not consent

because the proposal contained no remedy for past losses, included financial penalties, and imposed a broad, ambiguous five-year non-compete covenant.

21. Optelligence was most recently (*i.e.*, 2022) valued at approximately \$70 million, the majority of which is attributable to many of the same photonic and nanophotonic ideas, research and patents invented by Dr. Sorger for which he and Dr. El-Ghazawi had earlier formed Thinking Lights. On information and belief, Defendant Sorger received \$1.6 million or more from Optelligence, in addition to equity that reached 35%, in consideration for the contribution of his ideas, research and patents.

22. Dr. Sorger intended to deceive Dr. El-Ghazawi and Thinking Lights by the purposeful non-disclosure of his effective withdrawal from Thinking Lights and his parallel, secret 2020 negotiations with GWU and co-Founding of Optelligence. Dr. Sorger was assisted in such non-disclosure and negotiations by Defendants Movahhed Nouri and Dalir, both of whom had substantial knowledge of the Thinking Lights business plan and the company's then-ongoing GWU negotiations and, with respect to the GWU negotiations, by Defendant's Dalir's active participation. To date, despite requests, neither Optelligence nor any of the individual defendants has disclosed to Plaintiffs the 2022 Optelligence-GWU agreement.

23. Defendants Optelligence, Dr. Dalir and Movahhed Nouri have significantly benefited financially as a result of usurping Thinking Lights' corporate opportunity and by causing Dr. Sorger to breach his agreements with Plaintiffs.

**COUNT I**  
**(Breach of Contract – Against Defendant Sorger)**

23. Plaintiffs repeat and reallege the allegations of Paragraphs 1 through 22 above as if set forth herein in full.



24. Dr. Sorger and Plaintiffs agreed that Defendant Sorger would contribute his ideas, research and related patents to the parties' Thinking Lights venture.

25. Dr. Sorger refused to comply with that agreement and abandoned the Thinking Lights venture, refusing to continue supplying ideas, research and technological advances to the company and transferring, assigning or licensing many of the photonic and nanophotonic patents pledged to Thinking Lights instead to Optelligence for substantial monetary gain.

26. All conditions precedent to the performance of Defendant Sorger's obligations under the agreement have been satisfied or excused.

27. Dr. Sorger's contribution of his applicable patents to Optelligence, and his work with Optelligence in pursuing essentially the same business plan earlier conceived with Dr. El-Ghazawi, breached this agreement, as a proximate result of which Plaintiffs have been substantially injured in their business and property in an amount of at least \$18 million and foreseeable, consequential damages in such further amount as may be proved at trial.

**COUNT II**  
**(Breach of Fiduciary Duty – Against Defendant Sorger)**

28. Plaintiffs repeat and reallege the allegations of Paragraphs 1 through 27 above as if set forth herein in full.

29. As an equity member and executive officer of Thinking Lights, Defendant Sorger was subject to fiduciary duties of good faith and loyalty owed to the company. A corporate officer cannot negate the clear fiduciary duty to disclose a corporate opportunity before taking it for himself and owes the company the utmost good faith and loyalty in the performance of his duties, including the duty not to act adversely to the interests of the corporate entity by serving or acquiring any private interest of his own in antagonism or opposition thereto.

30. Dr. Sorger's failure to contribute any of his ideas, research and related patents to Thinking Lights and pursuit (successful) of a funding and business relationship with Optelligence violated this duty of loyalty by converting, without disclosure or agreement, a substantial corporate opportunity for his individual financial gain.

31. Defendant Sorger's breach of fiduciary duty was knowing, willful, wanton and malicious, such that punitive or exemplary damages to punish him and to deter others from engaging in such egregious conduct, in an amount to be determined by a jury a trial, should in addition be awarded to Thinking Lights.

**COUNT III**  
**(Fraud – Against Defendant Sorger)**

32. Plaintiffs repeat and reallege the allegations of Paragraphs 1 through 31 above as if set forth herein in full.

33. Defendant Sorger intentionally concealed and purposefully failed to disclose to Plaintiffs his negotiations and agreements with GWU and Optelligence.

34. Such concealment was a material fact, the non-disclosure of which was intended to lull Dr. El-Ghazawi and Thinking Lights into complacency and on which Plaintiffs relied to their detriment.

35. Plaintiffs did not discover, and even with reasonable diligence could not have discovered, this fraud until they learned of Dr. Sorger's misconduct in or about Fall 2022.

36. Plaintiffs have been injured in their business or property as a proximate result of Dr. Sorger's fraudulent concealment. Defendant Sorger's conduct was knowing, willful, wanton and malicious, such that punitive or exemplary damages to punish him and to deter others from engaging in such egregious conduct, in an amount to be determined by a jury a trial, should in addition be awarded to Dr. El-Ghazawi and Thinking Lights.

**COUNT IV**

**(Intentional Interference with Contract – Against All Defendants Other Than Sorger)**

37. Plaintiffs repeat and reallege the allegations of Paragraphs 1 through 36 above as if set forth herein in full.

38. Defendants Optelligence, Dalir and Movahhed Nori knew of Dr. Sorger's agreement with Plaintiffs and intentionally caused Defendant Sorger to breach that agreement.

39. Plaintiffs have been injured in their business or property as a proximate result of Defendants' tortious actions. Defendants' conduct was knowing, willful, wanton and malicious, such that punitive or exemplary damages to punish them and to deter others from engaging in such egregious conduct, in an amount to be determined by a jury at trial, should in addition be awarded to Dr. El-Ghazawi and Thinking Lights.

**COUNT V**

**(Intentional Interference with Business Relations – Against All Defendants Other Than Sorger)**

40. Plaintiffs repeat and reallege the allegations of Paragraphs 1 through 39 above as if set forth herein in full.

41. Defendants Optelligence, Dalir and Movahhed Nouri knew of Dr. Sorger's agreements with Plaintiffs and their common business expectation at that time of commercializing the Thinking Lights photonic and nanophotonic ideas, research and related patents through Thinking Lights. For their own personal financial gain, these Defendants intentionally caused Dr. Sorger to usurp that business expectancy and enter into a comparable financial and operational deal with Optelligence, including without limitation by approving the 2022 licensing and business agreement between GWU and Optelligence.

42. But for the knowing interference by Defendants Optelligence, Dalir and Movahhed, it is more likely than not that GWU and another venture or institutional investor would have

entered into a substantially similar business relationship with Thinking Lights with respect to funding and commercialization of the photonic ideas, research and related patents.

43. Plaintiffs have been injured in their business or property as a proximate result of Defendants' tortious actions. Defendants' conduct was knowing, willful, wanton and malicious, such that punitive or exemplary damages to punish them and to deter others from engaging in such egregious conduct, in an amount to be determined by a jury at trial, should in addition be awarded to Dr. El-Ghazawi and Thinking Lights.

**COUNT VI**  
**(Civil Conspiracy – Against All Defendants)**

44. Plaintiffs repeat and reallege the allegations of Paragraphs 1 through 43 above as if set forth herein in full.

45. Defendants Optelligence, Dalir and Movahhed Nouri conspired and agreed among themselves, and collectively with Defendant Sorger, to cause Dr. Sorger to evade his agreement with Plaintiffs and to enter into an undisclosed business relationship with Optelligence with respect to funding and commercialization of the photonic ideas, research and related patents in lieu of their contribution by Dr. Sorger to Thinking Lights.

46. The object of Defendants' conspiracy or agreement was tortious and unlawful.

47. Defendants' civil conspiracy has substantially injured Plaintiffs in their business or property in an amount of at least \$18 million and foreseeable, consequential damages in such further amount as may be proved at trial.

48. Defendants' tortious conspiracy or agreement was knowing, willful, wanton and malicious, such that such that punitive or exemplary damages to punish them and to deter others from engaging in such egregious conduct, in an amount to be determined by a jury at trial, should in addition be awarded to Dr. El-Ghazawi and Thinking Lights.

**COUNT VII**

**(Uniform Fraudulent Transfer Act/Accounting – Against Defendant Optelligence)**

49. Plaintiffs repeat and reallege the allegations of Paragraphs 1 through 48 above as if set forth herein in full.

50. Defendants have been aware of the legal claims by Dr. El-Ghazawi and Thinking Lights against Dr. Sorger and Optelligence for at least 18 months and have frequently discussed possible settlement with Dr. El-Ghazawi during that time period.

51. Such legal claims constitute Plaintiffs as a “creditor” within the meaning of the Uniform Fraudulent Transfer Act, (“UFTA”), enacted in Virginia at Va. Code § 55.1-400. *et seq.*

52. Plaintiffs are informed, and on that basis allege, that Defendants have recently caused Optelligence to sell or convey many of its assets, or otherwise dispose of a substantial portion of the value of the company, with intent to delay, hinder or defraud creditors, purchasers or other persons, specifically including Dr. El-Ghazawi and Thinking Lights, “of or from what they are or may be lawfully entitled.” Such actions are illegal and void as to Plaintiffs under § 55.1-402, which expressly authorizes relief from the courts to avoid such transfers even before judgment is obtained, permitting a creditor to be granted “all the relief with respect to such [assets] to which he would be entitled after obtaining a judgment for the claim for which he may be entitled to recover.”

53. Absent equitable UFTA relief, Plaintiffs will be prejudiced and unable as a practical matter to enforce a monetary judgment of this Court, justifying (a) an Order prohibiting Optelligence from further transferring corporate assets pending the conclusion of this lawsuit absent leave of court, and (b) an Order further commanding Optelligence to (i) account for all financially material assets of the company, and (ii) reverse and recover any corporate assets disposed of in the two-year period prior to commencement of this case.

54. On information and belief, Defendants Sorger, Dalir and Movahhed Nouri have pursued such asset transfers in order to position Optelligence as judgment proof. If correct, such actions would constitute settled grounds for the Court to “pierce the corporate veil” and impose personal UFTA liability on the individual defendants based on fraud. Plaintiffs at present lack sufficient knowledge of the personal involvement of these Defendants and accordingly have, at this time, limited Count VII to Defendant Optelligence, but intend and reserve the right to move under Rule 15 to further amend the Complaint in this regard if the facts revealed in discovery or proved at trial justify such an equitable remedy.

WHEREFORE, the above premises considered, Plaintiffs demand (a) judgment of and from Defendants, jointly and severally, in an amount of at least at \$18 million together with consequential damages in such further amount as may be proved at trial, plus (b) prejudgment interest for breach of contract at the highest lawful rate since December 2020, (c) an Order requiring Defendants to provide an accounting of all financially material assets of Optelligence and any corporate assets disposed of by Optelligence in the two-year period prior to commencement of this case, (e) punitive damages to punish Defendants and to deter others from engaging in such egregious conduct, in an amount to be determined by a jury a trial, as well as (f) the costs of this action, reasonable attorneys, and such other or further relief as the Court finds appropriate.

PLAINTIFFS DEMAND A TRIAL BY JURY

*[Signature block on following page]*

Respectfully submitted,

By: /s/ Glenn B. Manishin  
Glenn B. Manishin (VSB #49029)  
PARADIGMSHIFT LAW LLP  
11410 Reston Station Blvd., Suite 586  
Reston, VA 20190  
(202) 256-4600  
(877) 666-5111 (fax)  
glenn@manishin.com

*Counsel for Plaintiffs*

Dated: May 10, 2024

**CERTIFICATE OF SERVICE**

I hereby certify that on May 10, 2024, a copy of the foregoing was filed with the Court's CM/ECF system and served to the following attorneys, with consent to electronic delivery, by email:

John W. Lomas, Jr. (VSB #73148)  
William T. O'Brien (pro hac vice)  
EVERSHED SUTHERLAND (US) LLP  
700 6th St., NW  
Washington, DC 20001  
(202) 383-0100  
johnlomas@eversheds-sutherland.us  
williamobrien@eversheds-sutherland.us

Marc Weinstein (VSB #44645)  
U-GEN LAW PLLC  
8280 Willow Oaks Corp. Dr., Suite 600  
Vienna, VA 22031  
(571) 225-7285  
marc.weinstein@u-genlaw.com

Peter D. Weinstein (pro hac vice)  
ENTRALTA PLLC  
4500 Williams Dr., Suite 212 PMB 511  
Georgetown, TX 78833  
(805) 444-78665 p  
peter.weinstein@entralta.com

/s/ Glenn B. Manishin  
Glenn B. Manishin